Datasheet for ABIN3079013

POLN Protein (AA 1-900) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	POLN
Protein Characteristics:	AA 1-900
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This POLN protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MENYEALVGF DLCNTPLSSV AQKIMSAMHS GDLVDSKTWG KSTETMEVIN KSSVKYSVQL EDRKTQSPEK KDLKSLRSQT SRGSAKLSPQ SFSVRLTDQL SADQKQKSIS SLTLSSCLIP QYNQEASVLQ KKGHKRKHFL MENINNENKG SINLKRKHIT YNNLSEKTSK QMALEEDTDD AEGYLNSGNS GALKKHFCDI RHLDDWAKSQ LIEMLKQAAA LVITVMYTDG STQLGADQTP VSSVRGIVVL VKRQAEGGHG CPDAPACGPV LEGFVSDDPC IYIQIEHSAI WDQEQEAHQQ FARNVLFQTM KCKCPVICFN AKDFVRIVLQ FFGNDGSWKH VADFIGLDPR IAAWLIDPSD ATPSFEDLVE KYCEKSITVK VNSTYGNSSR NIVNQNVREN LKTLYRLTMD LCSKLKDYGL WQLFRTLELP LIPILAVMES HAIQVNKEEM EKTSALLGAR LKELEQEAHF VAGERFLITS NNQLREILFG KLKLHLLSQR NSLPRTGLQK YPSTSEAVLN ALRDLHPLPK IILEYRQVHK IKSTFVDGLL ACMKKGSISS TWNQTGTVTG RLSAKHPNIQ GISKHPIQIT TPKNFKGKED KILTISPRAM FVSSKGHTFL AADFSQIELR ILTHLSGDPE LLKLFQESER DDVFSTLTSQ

WKDVPVEQVT HADREQTKKV VYAVVYGAGK ERLAACLGVP IQEAAQFLES FLQKYKKIKD FARAAIAQCH QTGCVVSIMG RRRPLPRIHA HDQQLRAQAE RQAVNFVVQG SAADLCKLAM IHVFTAVAAS HTLTARLVAQ IHDELLFEVE DPQIPECAAL VRRTMESLEQ VQALELQLQV PLKVSLSAGR SWGHLVPLQE AWGPPPGPCR TESPSNSLAA PGSPASTQPP PLHFSPSFCL

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	POLN
Alternative Name:	POLN (POLN Products)
Target Type:	Viral Protein
Background:	DNA polymerase nu (EC 2.7.7.7),FUNCTION: DNA polymerase with very low fidelity that catalyzes considerable misincorporation by inserting dTTP opposite a G template, and dGTP opposite a T template (PubMed:16787914, PubMed:17118716). Is the least accurate of the DNA polymerase A family (i.e. POLG, POLN and POLQ) (PubMed:17118716). Can perform accurate translesion DNA synthesis (TLS) past a 5S-thymine glycol. Can perform efficient strand displacement past a nick or a gap and gives rise to an amount of product similar to that on non-damaged template. Has no exonuclease activity (PubMed:16787914). Error-prone DNA polymerase that preferentially misincorporates dT regardless of template sequence (PubMed:25775266). May play a role in TLS during interstrand cross-link (ICL) repair (PubMed:19908865). May be involved in TLS when genomic replication is blocked by extremely large major groove DNA lesions. May function in the bypass of some DNA-protein and DNA-DNA cross-links. May have a role in cellular tolerance to DNA cross-linking agents (PubMed:20102227). Involved in the repair of DNA cross-links and double-strand break (DSB) resistance. Participates in FANCD2-mediated repair. Forms a complex with HELQ helicase that participates in homologous recombination (HR) repair and is essential for cellular protection against DNA cross-links (PubMed:19995904). {ECO:0000269|PubMed:16787914, ECO:0000269|PubMed:17118716, ECO:0000269|PubMed:19908865, ECO:0000269|PubMed:19995904, ECO:0000269|PubMed:20102227, ECO:0000269|PubMed:25775266}.
Molecular Weight:	100.3 kDa
UniProt:	Q7Z5Q5

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months